| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/253,944 | 02/22/1999 | FUMIO NARISAWA | 381NP/47598 | 6255 |

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| EXAMINER |
|---|
| INGBERG, TODD D |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2124 | |

DATE MAILED: 02/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

$C\!\!\!\!\!L$

| **Office Action Summary** | Application No. 09/253,944 | Applicant(s) Fumio Narisawa et al. |
|---|---|---|
| | Examiner INGBERG | Art Unit 2124 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ___3___ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☐ Responsive to communication(s) filed on ___1/30/2003___ .

2a) ☒ This action is **FINAL**.　　2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) ___1, 8, 11 and 12___ is/are pending in the application.

　　4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) ___1, 8, 11 and 12___ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

　　If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All b) ☐ Some* c) ☐ None of:

　　　　1. ☐ Certified copies of the priority documents have been received.

　　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

　　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

　　a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

4) ☐ Interview Summary (PTO-413) Paper No(s). _____

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____

# DETAILED ACTION

Claims 1 , 8, 11 and 12 have been examined.

Claims 11 and 12 have been added.

The following office action is a response to the Request for Reconsideration of December 16,

2002 and the Supplemental amendment of January 30,2003.

## Claim Rejections - 35 U.S.C. § 102

1.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public
> use or on sale in this country, more than one year prior to the date of application for patent in the United
> States.

2.      Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by

USPN 6,230,314 **Sweeney** et al files October 2, 1997.

Rejection of claims 1 and 8 are maintained.

**Claim 1**

**Sweeney** anticipates a software generation system comprising: a specification analysis means

which analyzes an object-oriented specification for deriving specification information (**Sweeney,**

col 2, lines 14 -15, "This is accomplished by an analysis ..."); an optimized information input

means for inputting optimized information from an external unit (Interpreted as the reading of the

class structure from the file on a disk drive which is inherent), indicating a necessity or lack of

necessity for use of a dynamic generation function for dynamic generation of an instance

representing one of a set of object oriented functions (**Sweeney,** col 1, lines 57 - 59, " ...where a given member is (un) used by some, not all instances of a given class." - the determining which are to be eliminated and which are not to eliminate dead executable code and the second step in (**Sweeney,** col 2, lines 15-17, "... , followed by the construction of a new, specialized class ..."); a function removing means which checks said specification information derived by said specification analysis means and the optimized information input via said optimized information inputting means by collating with a predetermined function removal rule (**Sweeney,** Figure 18 shows the pseudo code for the updating step and col 2, lines 15 - 19 the transformation where the dead executable code is optimized away) , which removes a function which becomes unnecessary from a set of object-oriented functions by which members are realized, for generating from the specification information and the optimized information as per the steps above, program information excluding the unnecessary function; and a code generation means for generating a code according to said program information obtained by said function removing means (**Sweeney,** col 2, lines 29 - 33).

**Claim 8**

The software generation system according to Claim 1, further comprising: an analysis result display means for displaying a status of use of an object-oriented function by which a member is realized from the specification information (**Sweeney,** Figure 19, shows the Specialized Class Hierarchy resulting from Step 705(b) and updated program resulting from Step 705(c) for the example program of FIG. 11.).

3.      **Claims 11 and 12** are rejected under 35 U.S.C. 102(a,b) as being anticipated by

**Template Software's** commercial product the programming language **SNAP** as documented in

the manual "Using the SNAP Development Environment".

**Claim 11**

**Template Software** anticpates a software generation system comprising (SNAP Programming

language and development environment):  a specification analysis means which analyzes an

object-oriented specification for deriving specification information (**SNAP**, page 3-44, Figure 3-

8, Function Tab part of Class Editor) ; an optimization instruction input means for a system

operator inputting an optimization instruction via an external unit (**SNAP**, page 3-45, Table 3-26,

mouse click on table - GetByRmt Schema example in display 3-44), indicating use or lack of use

of respective object oriented functions contained within a set of object oriented functions

(**SNAP**, page 3-45, click on as per above and delete, new, edit functions from table 3-26)

; a function removing means which checks said specification information derived by the

specification analysis means (**SNAP**, page 3-45, delete function) and said optimization

instruction input via the optimization instruction inputting means (**SNAP**, page 3-44 to 3-45 as

per above), by collating with a predetermined function removal rule (**SNAP**, page 2-39, Building

an Application Executable), which removes a function that becomes unnecessary from said set of

object-oriented functions by which members are realized (**SNAP**, page 3-45, click on as per

above and delete, new, edit functions from table 3-26 and page 3-45, delete function ), for

generating from the specification information and the optimization instruction entered by said

system operator, program information excluding the unnecessary function (**SNAP**,page 3-45,

click on as per above and delete, new, edit functions from table 3-26 and page 3-45, delete

function); and a code generation means for generating a code according to said program

information obtained by said function removing means (**SNAP**, page 2-39 as per above

dependencies in bullet item).

**Claim 12**

The software generation system according to Claim 11, further comprising an analysis result

display means for displaying a status of use of an object-oriented function by which a member is

realized from the specification information (**SNAP**, page 3-44, figure 3-8).

### *Response to Arguments*

4.      Applicant's arguments filed January 30, 2003 have been fully considered but they are not

persuasive.

Claims 1 and 8 do not clearly claim the programmer's interaction with the optimization steps. In

the broadest reasonable interpretation the programmer when performing the normal function of

programming selects from a class browser portions of libraries that are to be included in the code

is optimization. Thus programmers in an object oriented environment routinely optimize through

their interaction of selecting components etc. Claim 11 does not clearly claim the optimization

step as being after the program is built and reads on the normal operations of a OO programmer.

### *Allowable Subject Matter*

5.      It is the interpretation that figures 5 and 12 show allowable subject matter. The following

is the interpretation of the Examiner from the interview as the novel aspects of the invention. The

optimization step is performed after the program is written. The current claim language does not

distinguish this additional step. This is critical since object oriented programmers select which

classes to use of not to use as a matter of programming in the object oriented environment (OO).

The current claim language in the broadest reasonable interpretation fails to distinguish over the

normal actions of an OO programmer. It is possible to interpret a function removing means to be

the code generation through inheritance of an object model resulting from a programmers

interaction.

What the Examiner interprets as novel is the additional step after a programmer has

performed the normal steps of writing an object oriented program where the analysis means is

performed and the system offers use or don't use options on methods via screen such as the

figures mentioned above. This added step has an element of risk because the programmer can

delete a method associated with the program one or more times with the hope it does not cause

an error (Figure 17 A). These distinctions are not clearly present. It is the Examiner's duty to give

further search and consideration to all amendments. The Examiner encourages an after final

amendment to clearly make these distinctions.

### *Conclusion*

6.      Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action.  Accordingly, **THIS ACTION IS MADE FINAL.**  See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.  In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

1.136(a) will be calculated from the mailing date of the advisory action.  In no event, however,

will the statutory period for reply expire later than SIX MONTHS from the date of this final

action.

## *Correspondence Information*

7.      Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to **Todd Ingberg** whose telephone number is **(703) 305-9775.** The

Examiner is working a Maxi-Flex schedule and can be reached Monday through Friday. If

attempts to reach the examiner by  telephone are unsuccessful, the **Examiner's Supervisor,**

**Kakali Chaki**  be reached at **(703)305-9662.** Any response to this office action should be mailed

to: **Director of Patents and Trademarks Washington, D.C. 20231,** or **Hand-delivered**

responses should be brought to **Crystal Park II, 2121 Crystal Drive Arlington, Virginia,**

**(Receptionist located on the fourth floor),** or  **faxed.** The following **fax numbers** apply:

**Official** (703) 746 - 7239

**Non Official/ Draft** (703) 746 -7240

**After Final** (703) 746 - 7238

**Todd Ingberg**

Patent Examiner

Art Unit 2124

February 8, 2003